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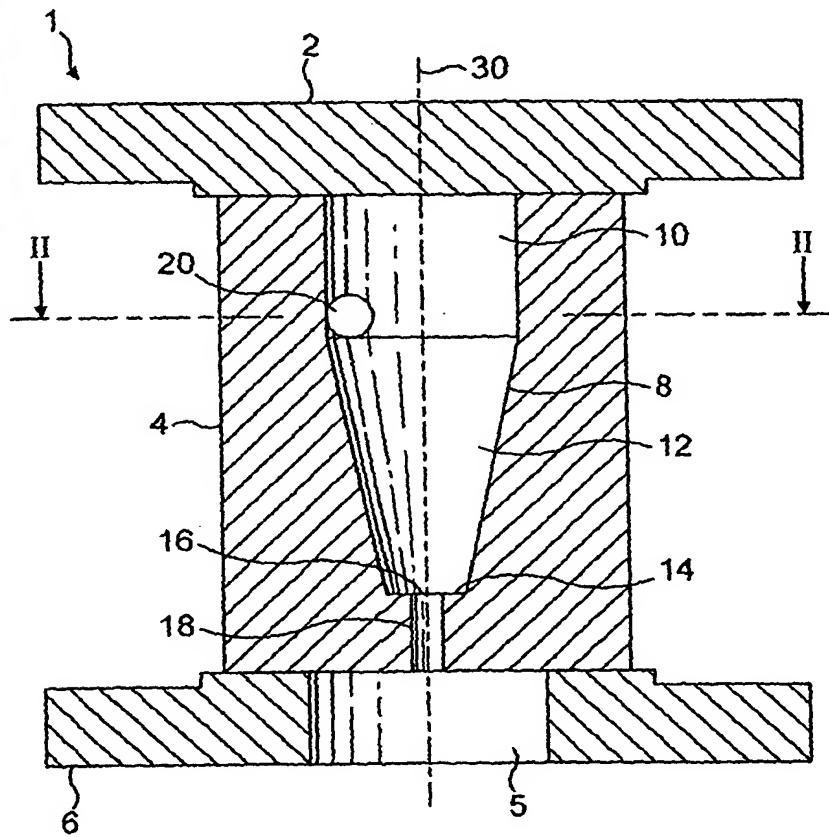
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[Continued on next page]

(54) Title: CONDENSATE TRAP



(57) Abstract: A steam trap (1) is provided comprising a chamber (8) having a substantially cylindrical sidewall, an inlet (20) provided towards the upper end of the sidewall, and an escape aperture (16) provided at its base. The inlet (20) introduces the fluid into the chamber (8) in a manner to promote a rotational flow of the fluid in the chamber (8), so as to create a low pressure location upstream of the escape aperture (16) to restrict the discharge rate of the aperture (16).

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- with amended claims and statement

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

AMENDED CLAIMS

[received by the International Bureau on 18 August 2004 (18.08.04);
original claim 1 amended; remaining claims unchanged 2-25 (1 page)]

Claims

1. A condensate trap comprising a vortex chamber, an inlet and a single outlet, the inlet being disposed to admit fluid into the chamber in a tangential direction with respect to the longitudinal axis of the chamber so as to promote a rotational flow of the fluid in the chamber about the longitudinal axis, thereby to generate a low pressure region within the fluid, and the outlet comprising an escape aperture situated at an axial end of the chamber so as to open into the low pressure region in operation of the condensate trap.
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2. A condensate trap as claimed in claim 1, wherein at least a portion of the vortex chamber is cylindrical.
3. A condensate trap as claimed in claim 1 or 2, wherein at least a portion of the vortex chamber is frusto conical.
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4. A condensate trap as claimed in claims 2 and 3, wherein the cylindrical portion adjoins the wider diameter end of the frusto conical portion.
- 20 5. A condensate trap as claimed in claim 4, wherein the inlet opens into the cylindrical portion.
6. A condensate trap as claimed in claims 3 to 5, wherein the escape aperture is disposed at the narrower end of the frusto conical portion.
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7. A condensate trap as claimed in any one of the preceding claims, wherein the escape aperture is situated on the longitudinal axis of the vortex chamber.

STATEMENT UNDER ARTICLE 19(1)

Claim 1 is amended to clarify that the inlet to the vortex chamber is disposed tangentially, and that the resulting rotational flow creates a low pressure region into which opens the escape aperture. Corresponding amendment will be made in due course in the description, in the paragraph beginning at line 5 on page 2.

US-A1-3037518 discloses a steam trap having a trap chamber into which inlets emerge axially. Consequently, no rotational flow is promoted to generate a low pressure region adjacent the outlet.